**Table S1: Landsat images used in this study.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Landsat mission | Spatial resolution (m) | Acquisition date  (dd month yyyy) | Image ID (File name) |
| 1 | Landsat 5 | 30 | 13 January 1985 | LM05\_L1TP\_165043\_19850113 |
| 2 | Landsat 5 | 30 | 17 February 1986 | LT05\_L2SP\_165043\_19860217 |
| 3 | Landsat 5 | 30 | 20 February 1987 | LT05\_L2SP\_165043\_19870220 |
| 4 | Landsat 5 | 30 | 07 February 1988 | LT05\_L2SP\_165043\_19880207 |
| 5 | Landsat 5 | 30 | 25 February 1989 | LT05\_L2SP\_165043\_19890225 |
| 6 | Landsat 5 | 30 | 29 December 1990 | LT05\_L2SP\_165043\_19901229 |
| 7 | Landsat 5 | 30 | 15 February 1991 | LT05\_L2SP\_165043\_19910215 |
| 8 | Landsat 5 | 30 | 18 February 1992 | LT05\_L2SP\_165043\_19920218 |
| 9 | Landsat 5 | 30 | 24 March 1993 | LT05\_L2SP\_165043\_19930324 |
| 10 | Landsat 5 | 30 | 06 January 1994 | LT05\_L2SP\_165043\_19940106 |
| 11 | Landsat 5 | 30 | 10 February 1995 | LT05\_L2SP\_165043\_19950210 |
| 12 | Landsat 5 | 30 | 29 February 1996 | LT05\_L2SP\_165043\_19960229 |
| 13 | Landsat 5 | 30 | 14 January 1997 | LT05\_L2SP\_165043\_19970114 |
| 14 | Landsat 5 | 30 | 22 March 1998 | LT05\_L2SP\_165043\_19980322 |
| 15 | Landsat 5 | 30 | 20 January 1999 | LT05\_L2SP\_165043\_19990120 |
| 16 | Landsat 5 | 30 | 23 January 2000 | LT05\_L1TP\_165043\_20000123 |
| 17 | Landsat 5 | 30 | 25 January 2001 | LT05\_L1TP\_165043\_20010125 |
| 18 | Landsat 5 | 30 | 28 January 2002 | LT05\_L1TP\_165043\_20020128 |
| 19 | Landsat 7 | 30 | 08 February 2003 | LE07\_L1TP\_165043\_20030208 |
| 20 | Landsat 7 | 30 | 11 February 2004 | LE07\_L1TP\_165043\_20040211 |
| 21 | Landsat 7 | 30 | 12 January 2005 | LE07\_L1TP\_165043\_20050112 |
| 22 | Landsat 7 | 30 | 20 March 2006 | LE07\_L1TP\_165043\_20060320 |
| 23 | Landsat 7 | 30 | 19 February 2007 | LE07\_L1TP\_165043\_20070219 |
| 24 | Landsat 7 | 30 | 22 February 2008 | LE07\_L1TP\_165043\_20080222 |
| 25 | Landsat 7 | 30 | 24 February 2009 | LE07\_L1TP\_165043\_20090224 |
| 26 | Landsat 7 | 30 | 11 February 2010 | LE07\_L1TP\_165044\_20100211 |
| 27 | Landsat 7 | 30 | 02 March 2011 | LE07\_L1TP\_165044\_20110302 |
| 28 | Landsat 7 | 30 | 04 March 2012 | LE07\_L1TP\_165043\_20120304 |
| 29 | Landsat 7 | 30 | 03 February 2013 | LE07\_L1TP\_165043\_20130203 |
| 30 | Landsat 8 | 30 | 13 January 2014 | LC08\_L1TP\_165043\_20140113 |
| 31 | Landsat 8 | 30 | 16 January 2015 | LC08\_L2SP\_165043\_20150116 |
| 32 | Landsat 8 | 30 | 04 February 2016 | LC08\_L1TP\_165043\_20160204 |
| 33 | Landsat 8 | 30 | 05 January 2017 | LC08\_L2SP\_165043\_20170105 |
| 34 | Landsat 8 | 30 | 09 February 2018 | LC08\_L1TP\_165043\_20180209 |
| 35 | Landsat 8 | 30 | 11 January 2019 | LC08\_L2SP\_165043\_20190111 |
| 36 | Landsat 8 | 30 | 14 January 2020 | LC08\_L1TP\_165043\_20200114 |